



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

APR 13 2007

REPLY TO THE ATTENTION OF:  
(AE-17J)

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Grant W. Robbins, Manufacturing Manager  
3M Company  
Abrasive Systems Division  
10746 Innovation Road, Building 112  
Cottage Grove, Minnesota 55016-4600

Re: Finding of Violation  
3M Company, Cottage Grove, Minnesota

Dear Mr. Robbins:

This letter advises you that the United States Environmental Protection Agency (U.S. EPA or we) has determined that the 3M Company's facility at 10746 Innovation Road, Building 112, Cottage Grove, Minnesota (facility) is in violation of the Clean Air Act (CAA) and the Standards of Performance for Calciners and Dryers in Mineral Industries (Calciner/Dryer NSPS). We have provided a list of the requirements violated below. We are today issuing to you a Finding of Violation (FOV) for these violations.

Section 111 of the CAA requires U.S. EPA to promulgate emission standards for any category of stationary sources which causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare. U.S. EPA proposed the Calciner/Dryer NSPS on April 23, 1986, and promulgated the Calciner/Dryer NSPS on July 28, 1992. The Calciner/Dryer NSPS includes the following requirements:

- 1) Pursuant to 40 C.F.R. § 60.734(a), the owner or operator of an affected calciner who uses a dry control device to comply with the mass emission standard shall install, calibrate, maintain, and operate a continuous monitoring system to measure and record the opacity of emissions discharged into the atmosphere from the control device.

- 2) Pursuant to 40 C.F.R. § 60.734(d), the owner or operator of an affected calciner who uses a wet scrubber to comply with the mass emission standard for any affected facility shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber.
- 3) Pursuant to 40 C.F.R. § 60.735(a), the owner or operator of an affected calciner must retain records of the measurements required in § 60.734 for at least 2 years.
- 4) Pursuant to 40 C.F.R. § 60.735(b), the owner or operator of an affected calciner who uses a wet scrubber to comply with § 60.732 shall determine and record once each day, from the recordings of the monitoring devices in § 60.734(d), an arithmetic average over a 2-hour period of both the change in pressure of the gas stream across the scrubber and the flow rate of the scrubbing liquid.

Because the facility is subject to the Calciners/Dryers NSPS, it is also subject to the following General Provision requirements:

- 1) Pursuant to 40 C.F.R. § 60.7(a)(1), the owner or operator of an affected calciner must submit to U.S. EPA notification of the date on which construction of an affected calciner commenced. The notification must be postmarked no later than 30 days after such date.
- 2) Pursuant to 40 C.F.R. § 60.7(a)(3), the owner or operator of an affected calciner must submit to U.S. EPA notification of the actual date of initial startup of an affected facility. The notification must be postmarked within 15 days after such date.
- 3) Pursuant to 40 C.F.R. § 60.7(c), the owner or operator of an affected facility must submit to U.S. EPA excess emissions and monitoring systems performance reports semiannually.

U.S. EPA finds that the 3M facility has violated the above NSPS General Provisions and Calciner/Dryer NSPS requirements. Section 113 of the CAA gives us several enforcement options to resolve these violations, including: issuing an administrative compliance order, issuing an administrative penalty order, bringing a judicial civil action, and bringing a judicial criminal action. The option we select, in part, depends on the

efforts taken by 3M to correct the alleged violations and the timeframe in which you can demonstrate and maintain continuous compliance with the requirements cited in the FOV.

Before we decide which enforcement option is appropriate, Section 113 of the CAA provides you with the opportunity to request a conference with us about the violations alleged in the FOV. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for your facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

The U.S. EPA contact in this matter is Charles Hall. You may call him at (312) 353-3443 if you wish to request a conference. EPA hopes that this FOV will encourage 3M's compliance with the requirements of the Clean Air Act.

Sincerely yours,

 *ACTIVE*  
Stephen Rothblatt, Director  
Air and Radiation Division

Enclosure

cc: Ann Foss, Chief, Major Air and Construction Section  
Majors and Remediation Division  
Minnesota Pollution Control Agency

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

IN THE MATTER OF:	) FINDING OF VIOLATION
	)
3M Company	) EPA-5-07-MN-12
Cottage Grove, Minnesota	)
	)
Proceedings Pursuant to the	)
Clean Air Act,	)
42 U.S.C. §§ 7401 et seq.	)

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**FINDING OF VIOLATION**

3M Company (you or 3M) owns and operates two pre-fire rotary kilns and a final fire kiln to calcine boehmite, an alumina mineral, at its Cottage Grove Facility. Minnesota Pollution Control Agency (MPCA) Air Emission Permit Number 16300017-002 designates the kilns as Emission Unit (EU) 007, EU 008, and EU 009. The Permit designates the combined emissions from EU 008 and EU 009 as EU 010.

U.S. EPA is sending this Finding of Violation (FOV) to you for violations of several underlying statutory and regulatory requirements of the Clean Air Act (CAA), the Standards of Performance for Calciners and Dryers in Mineral Industries (Calciner/Dryer NSPS), and the Standards of Performance General Provisions. We have provided below a list of the requirements and an explanation of each requirement.

Section 113 of the CAA provides you with the opportunity to request a conference with us to discuss the violations alleged in the FOV. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for the Facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

**Explanation of Violations**

The following provides a description of the regulations 3M violated and how 3M violated them:

1. The affected facility to which the provisions of the Calciner/Dryer NSPS apply is each calciner and dryer that

is located at a mineral processing plant and on which construction commenced after April 23, 1986.

2. 3M owns and operates three calciners. MPCA Air Emission Permit Number 16300017-002 designates the calciners as EU 007, EU 008, and EU 009. The Permit designates the combined emissions from EU 008 and EU 009 as EU 010. On December 6, 1991, 3M commenced construction of EU 007, EU 008, and EU 009. 3M constructed EU 007, EU 008, and EU 009 at a facility that processes boehmite, an alumina mineral.
3. Pursuant to 40 C.F.R. § 60.7(a)(1), the owner or operator of an affected calciner must submit to U.S. EPA notification of the date on which construction of an affected calciner commenced. The notification must be postmarked no later than 30 days after such date. U.S. EPA has delegated the authority to receive such notifications to MPCA.
4. 3M cannot establish that it notified MPCA or U.S. EPA of the commencement of construction of any of its three calciners.
5. Pursuant to 40 C.F.R. § 60.7(a)(3), the owner or operator of an affected calciner must submit to U.S. EPA notification of the actual date of initial startup of an affected calciner. The notification must be postmarked within 15 days after such date. U.S. EPA has delegated the authority to receive such notifications to MPCA.
6. 3M cannot establish that it notified MPCA or U.S. EPA of the actual date of initial startup of any of its three calciners.
7. Pursuant to 40 C.F.R. § 60.7(c), the owner or operator of an affected calciner must submit to U.S. EPA an excess emissions and monitoring systems performance report for each continuous monitoring system (CMS) semiannually.
8. Pursuant to 40 C.F.R. § 60.735(a), the owner or operator of an affected calciner must retain records of the measurements required in § 60.734 for at least 2 years.
9. Pursuant to 40 C.F.R. § 60.734(a), the owner or operator of an affected calciner who uses a dry control device to comply with the mass emission standard shall install,

calibrate, maintain, and operate a CMS to measure and record the opacity of emissions discharged into the atmosphere from the control device.

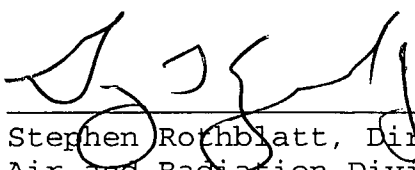
10. 3M uses three dry scrubbers to control particulate matter (PM) emissions from EU 007. During an October 27, 2006, inspection the Environmental, Health, and Safety (EHS) Supervisor stated that 3M continuously monitors the pressure drop across two of the dry scrubbers and does not monitor any other emissions or operating parameters.
11. 3M has not installed a continuous opacity monitoring system (COMS) to measure and record the opacity of gases exhausted from EU 007.
12. 3M has not submitted excess emissions and monitoring system performance reports for a COMS on EU 007.
13. Pursuant to 40 C.F.R. § 60.734(d), the owner or operator of an affected calciner who uses a wet scrubber to comply with the mass emission standard for any affected facility shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber.
14. 3M uses one wet scrubber to control nitrogen oxide and PM emissions from EU 010. During the October 27, 2006, inspection, the EHS Supervisor stated that 3M continuously monitors its nitrogen oxide emissions from EU 010 and does not monitor any other emissions or operating parameters.
15. 3M has not installed a pressure drop CMS to measure and record the pressure drop across the wet scrubber on EU 010.
16. 3M has not installed a scrubbing liquid flow rate CMS to measure and record the scrubbing liquid flow rate for the wet scrubber on EU 010.
17. 3M has not submitted excess emissions and monitoring system performance reports for a pressure drop CMS on EU 010.
18. 3M has not submitted excess emissions and monitoring system performance reports for a scrubbing liquid flow rate CMS on EU 010.

19. 3M has not continuously measured and recorded opacity, pressure drop, or scrubbing liquid flow rate. Therefore 3M has not retained the required records for the previous 2 years.
20. Pursuant to 40 C.F.R. § 60.735(b), the owner or operator of an affected calciner who uses a wet scrubber to comply with § 60.732 shall determine and record once each day, from the recordings of the monitoring devices in § 60.734(d), an arithmetic 2-hour average of pressure drop across the wet scrubber and the scrubbing liquid flow rate.
21. 3M does not conduct the required pressure drop and scrubbing liquid flow rate monitoring, and therefore, 3M has not recorded the daily 2-hour pressure drop and scrubbing liquid flow rate averages for EU 010.

#### **Environmental Impact of Violations**

22. Violation of the notification requirements prevents U.S. EPA from knowing when an owner or operator has commenced construction of an affected facility.
23. Violations of the monitoring, recordkeeping, and reporting requirements prevent U.S. EPA from knowing whether an affected facility has maintained compliance with the applicable emission standards.

4/13/67  
Date

  
Stephen Rothblatt, Director  
Air and Radiation Division

ACTING

**CERTIFICATE OF MAILING**

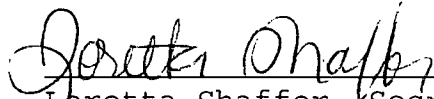
I, Loretta Shaffer, certify that I sent a Finding of Violation, No. EPA-5-07-MN-12, by Certified Mail, Return Receipt Requested, to:

Grant W. Robbins, Manufacturing Manager  
3M Company  
Abrasive Systems Division  
10746 Innovation Road, Building 112  
Cottage Grove, Minnesota 55016-4600

I also certify that I sent copies of the Finding of Violation by first class mail to:

Ann Foss, Chief, Major Air and Construction Section  
Majors and Remediation Division  
Minnesota Pollution Control Agency  
520 Lafayette Road  
St. Paul, Minnesota 55155-4194

on the 16<sup>th</sup> day of April, 2007.

  
Loretta Shaffer, Secretary  
AECAS, (MN/OH)

CERTIFIED MAIL RECEIPT NUMBER: 70010330 0005 8919 2171